CBOE S&P Monthly Range Capture Index

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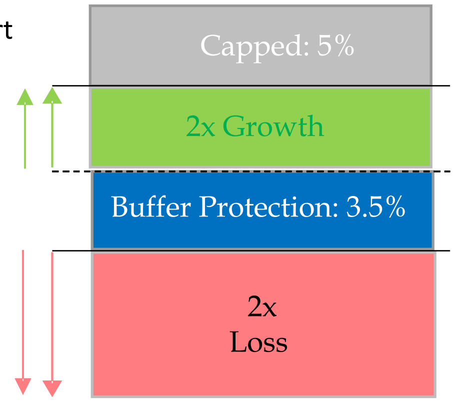
Introduction



The CBOE S&P 500 Monthly Range Capture Index (the "*Index*") is part of a family of Target Outcome Indices. The Index is designed to provide target outcome returns linked to the US domestic stock market.

The Index measures the performance of a portfolio of exchange traded Flexible Exchange® Options ("*FLEX® Options*") that are based on the S&P 500® Index. The Index is designed to track the returns of an investment that over a period of approximately one month seeks to provide 2x leveraged returns on the appreciation of the S&P 500 Index up to a capped level of 5% while seeking to "buffer protect" against the first 3.5% losses due a decline in the S&P 500 Index, with 2x leveraged exposure to any losses due to decline in the index beyond the 3.5% buffer. The net premium to replicate the investment is paid or received on each monthly roll date such.

The ticker for the index is SUPDN.

Highlights

A Range Capture Strategy is a leveraged and protection strategy that is generally used in a short term (over a one-month period) modest range-bound bear or bull market environment. It seeks to provide 2 times leveraged upside up to a set cap, a buffer of protection against downside losses and two-to-one leveraged exposure on the downside beyond the buffer.

The Index is a part of the outcome based approach to investing. Many investments target speculative returns, with uncertain levels of risk, over an uncertain period of time. While opportunistic, this approach to investing brings a high degree of uncertainty. Outcome based investing encourages targeting a specific defined return or "payoff", with an allowance for a specific defined risk, at a specific point in time in the future.

The strategy seeks to provide similar returns to the S&P500 Index, with lower volatility and downside risk, but higher upside potential in market environments with modest gains or losses.

Index Series Value and Return

First Roll Date and Starting Values

The Index will have a monthly Roll Date(i) on the last business day of the month, except if the last business day of the month falls on a Tuesday or Thursday, in which case the roll date shall be the next Monday, Wednesday or Friday business day, and have a value that was set as of the following date:

Index_0: 1000 as of January 2, 2000

On the subsequent monthly Roll Date of, the FLEX Option components within the will expire and the Index simultaneously rolls to a new set of FLEX Options with the expiration of the Options as of the close on the next Roll Date.

Components

The Index will consist of an Options Portfolio of FLEX Options ("Options Portfolio") and a Fixed Income component of T-Bills.

Options Portfolio

The Options Portfolio will comprise FLEX options whose strike prices and expiry dates will be set on the Roll Date at time T-1 relative to the closing level of S&P 500 Index (SPX_{T-1}) on Roll Date:

- Position A: Purchase (1 x ($Index_{T-1}$ / SPX_{T-1}) call options with strike equal to 0.0% x SPX_{T-1}
- Position B: Purchase (1 x ($Index_{T-1}$ / SPX_{T-1}) call options with strike equal to 100.0% x SPX_{T-1}
- Position C: Sell (2 x ($Index_{T-1}$ / SPX_{T-1}) call options with strike equal to 102.5% x SPX_{T-1}
- Position D: Purchase (1 x ($Index_{T-1}$ / SPX_{T-1}) put options with strike equal to 100.0% x SPX_{T-1}
- Position E: Sell (2 x ($Index_{T-1}$ / SPX_{T-1}) put options with strike equal to 96.5% x SPX_{T-1}
- Position F: Purchase (2 x ($Index_{T-1}$ / SPX_{T-1}) put options with strike equal to 46.5% x SPX_{T-1}

All FLEX Options are European-Style Options based on the S&P 500 Index and have an expiration date that is the next Roll Date (T).

The value of this options portfolio at time *t* is $OptionPorfolio_t$.

Index Calculations

The value of the Index will be calculated as follows for time *t*, after the Roll Date (T-1):

$Index_t$ = [1+FixedIncomeReturn(t, T-1) + OptionReturn(t, T-1)] x $Index_{T-1}$

Where,

FixedIncomeReturn(t, T-1): Not_{T-1} x (1 + $Rate_{T-1}$)$^{n/365}$
n = # of days between t and T-1
$Rate_{T-1}$ = 1 month US treasury yield
Not_{T-1} = ($Index_{T-1}$ - $OptionPortfoio_{T-1}$) / $Index_{T-1}$
OptionReturn (t,T-1) = ($OptionPorfolio_t$ – $OptionPortfolio_{T-1}$)/ $Index_{T-1}$
$OptionPortfolio_t$ = Value of the option portfolio at time t
$Index_{T-1}$ = Value of the Index on the last Roll Date

Valuation

To value the component Options that comprise the index series, a model based valuation service offered by a CBOE is used.

CBOE constructs an implied volatility surface from listed S&P 500 option prices by applying the SABR model. The SABR model is a stochastic volatility model, which attempts to capture the volatility smile in derivatives markets. The name stands for "stochastic alpha, beta, rho", referring to the parameters of the model, introduced by Hagan et.al., as an attempt to model the volatility surface and capture the empirically observed dynamic behavior of the smile. Valuations for the options are then calculated for the official close of CBOE each trading date.

Index Maintenance

Index Construction

CBOE gathers information for the option components and applies the methodology to create individual index series.

Valuation and Equations

CBOE determines an evaluated value for each component option and associated equation in the Indices.

Calculation and Dissemination

CBOE compiles, calculates, maintains and disseminates the values of the Indices. Calculation will occur once a day upon the official close of CBOE trading hours.

Options involve risk and are not suitable for all investors. Prior to buying or selling an option, a person must receive a copy of Characteristics and Risks of Standardized Options. Copies are available from your broker or from The Options Clearing Corporation, One North Wacker Drive, Suite 500, Chicago, Illinois 60606 or www.theocc.com. The CBOE S&P 500 Monthly Range Capture Index (the "Index") is designed to represent a proposed hypothetical strategy. Like many passive indexes, the Index do not take into account significant factors such as transaction costs and taxes and, because of factors such as these, many or most investors should be expected to underperform passive indexes. In the construction of the Index, the options components of each the Index are assumed to be purchased and sold at a certain price on the last business day of the month. However, there is no guarantee that all investors will be able to buy or sell at this price, and investors attempting to replicate the Index should discuss with their brokers possible timing and liquidity issues. Transaction costs and taxes for a strategy such as the Index could be significantly higher than transaction costs for a passive strategy of buying-and-holding stocks. Investors should consult their tax advisor as to how taxes affect the outcome of contemplated options transactions. Past performance does not guarantee future results. It is not possible to invest directly in an index. Chicago Board Options Exchange, Incorporated (CBOE) calculates and disseminates the Index.

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